

A new species and records of Senegambian Lepismatidae (Thysanura)

by

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A collection of Lepismatidae from Gambia and Senegal, housed in the Zoological Institute, Lund University, is listed. *Ctenolepisma gambiana* sp. nov. is described and compared to similar species.

West African Lepismatidae have previously been treated by Silvestri (1908) and Wygodzinsky (1958), but the fauna remains poorly known. The material listed below was collected by the 1977 Senegambian expedition of the Lund University Zoological Institute, and is deposited in the institute's museum. It was kindly made available for study by Dr R. Danielsson, to whom I am much indebted.

Namunukulina congolense Mendes

Namunukulina congolense Mendes, 1982: 652.

The record below considerably enlarges the range of this species, which was formerly known from Zaire only.

MATERIAL EXAMINED. GAMBIA: 2 females, 3 km N.W. Central Banjul, garden at Wadner Beach Hotel, 25.ii.1977.

Ctenolepisma longicaudata Escherich

Ctenolepisma longicaudata Escherich, 1905: 83.

This cosmopolitan synanthropic silverfish is new for Gambia. It has been recorded from Senegal by Wygodzinsky (1958).

MATERIAL EXAMINED. GAMBIA: 1 female, Wadner Beach, 14.ii.1977; 1 female, Wadner Beach, 19.iii.1977.

Ctenolepisma feae Silvestri

Ctenolepisma feae Silvestri, 1908: 147.

This species, which is common on the Cape Verde Islands, is here recorded from the adjacent African mainland for the first time.

MATERIAL EXAMINED. SENEGAL: 1 female, Kolda, at River Casamance, 7.iii.1977.

Ctenolepisma submagna Silvestri**Ctenolepisma submagna** Silvestri, 1908: 145.

C. submagna, described from Guinea-Bissau, was hitherto known from the type material only. It is the only known *Ctenolepisma* species which has both urotergal setation of the 'targionii-type' and a subtriangular tenth urotergite. The following notes are intended to supplement the original description.

Antennae, caudal filaments, legs and maxillary palpi annulated with black hypodermal pigment. Styli and postero-ventral abdomen also heavily pigmented. Pronotum with 11+11, mesonotum with 9+9, and metanotum with 8+8 lateral bristlecombs of two to three macrosetae each; each thoracic notum also with 1+1 postero-lateral bristlecombs of five macrosetae each. Urotergite I with 1+1 bristlecombs, II to V with 3+3 and VI to VIII with 2+2; each bristlecomb consisting of four to six macrosetae. Urotergite IX bare. Urotergite X with 1+1 bristlecombs of six to seven macrosetae each. Thoracic sterna exceptionally large and wide; all three similar in size, shape and setation, which latter consists of 1+1 fringes of marginal setae on the postero-lateral angles, as well as 2-3+2-3 very small bristlecombs of (1-)2-3 macrosetae each, situated very close to the margin of the sternite. Urosternites I and II bare, III to VIII with 1+1 lateral bristlecombs of 9 to 11 macrosetae each. Ovipositor of normal proportions, not as massive as in Fig. VII, 7 of the original description.

In general appearance, especially the wide thorax, pigment pattern and shape of urotergite X, *C. submagna* bears a remarkable resemblance to *Thermobia aegyptiaca*.

MATERIAL EXAMINED. GAMBIA: 1 female, Bamba forest about 4 km N.N.W. Brikama road junction, 24.ii.1977; 1 male, Sea-shore about 5 km S.S.W. Gunjur, 27.ii.1977; 1 immature female, River Tanji 3 km S.W. Brufut, 28.ii.1977.

Ctenolepisma diversisquamis Silvestri**Ctenolepisma diversisquamis** Silvestri, 1908: 153.

C. diversisquamis, described from the Cape Verde Islands, was subsequently recorded from the New World, Ethiopia and Zaire. It is new for Gambia.

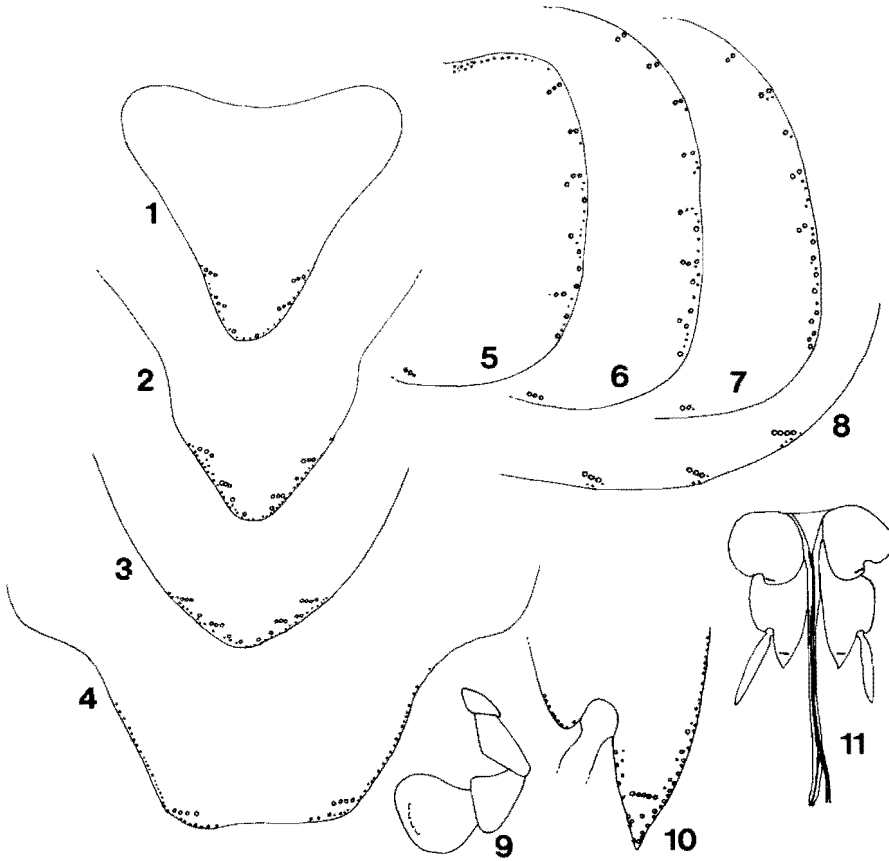
It belongs to a difficult group of small (body length on average 6 mm) *Ctenolepisma* spp., all of which possess 'targionii-setation', very short tenth urotergites, a reduced number (two to four) of macrosetae in the dorsal bristlecombs, and a reduced number of striae on some dorsal scales. The group also includes *C. incita* and *C. brachyura* Silvestri, 1918 and *C. reducta* Folsom, 1923. There are no significant differences between these species apparent from their descriptions. Paclt (1967) treated both *C. brachyura* and *C. reducta* as synonyms of *C. diversisquamis*, and Wygodzinsky (1972) formally synonymized at least *C. reducta* with *C. diversisquamis*, but neither author mentions seeing any types. The probable synonymy of the four species cannot be accepted before their types have been re-examined. In this regard it must be noted that both *C. rothschildi* Silvestri, 1907 and *C. nigra* (Oudemans, 1890) (as redescribed by Silvestri, 1913) differ from the other species mentioned above mainly by their lack of sparsely striated scales, a character which is easily lost by rough handling of specimens. They will also need to be re-examined in the above regard.

***Ctenolepisma gambiana* sp. nov.**

DESCRIPTION. Body length up to 5,5 mm. Body slender, as usual for genus. Violaceous hypodermal pigment present on the labial and maxillary palps, antennae, femorae, tibiae and tarsi. Scales dorsally golden brown, ventrally transparent; finely striate. Macrosetae dark brownish yellow, plumose.

Antennae up to body length. Maxillary palp short, slender, apical segment slightly longer than subapical segment. Apical segment of labial palp unilaterally dilated, 1,0 to 1,25 times wider than long, with four small sensory papillae arranged in a single row (Fig. 9).

Pronotum anteriorly with a setal fringe (Fig. 5). Thoracic nota each with



Figs. 1–11. *Ctenolepisma gambiana* sp. nov., holotype. 1. Prosternum. 2. Mesosternum. 3. Metasternum. 4. Urotergite X. 5. Pronotum, right lateral portion. 6. Mesonotum, *ibid.* 7. Metanotum, *ibid.* 8. Urotergite V, *ibid.* 9. Distal labial palp. 10. Coxite IX. 11. Female genital area.

4-6+4-6 ill defined lateral submarginal bristlecombs, consisting of two to three macrosetae each (Figs 5-7); also 1+1 postero-lateral bristlecombs of two to three macrosetae each; also a marginal setal fringe which is most prominent towards the postero-lateral angles, each. Thoracic sterna subtriangular, apically rounded, as in Figs 1-3, each with 2+2 subapical bristlecombs of two to four macrosetae each, as well as several single macrosetae and a setal fringe.

Legs short. Femur and tibia each with a few robust spines. Tarsi with two claws and an empodium.

Urotergite I with 1+1 bristlecombs, II to VI with 3+3 each, VII and VIII with 2+2 each, and IX bare. Number of macrosetae in lateral bristlecombs three to four each, in sublateral bristlecombs one to three each, and in submedian bristlecombs three each (Fig. 8). Urotergite X trapezoid, posteriorly slightly emarginate, with 1+1 lateral setal fringes and 1+1 bristlecombs of four macrosetae each (Fig. 4).

Urosternite I unsetated, II with one median bristlecomb, III to VI with 1+1+1 bristlecombs, and VII to IX with 1+1 bristlecombs each. Number of macrosetae in median bristlecombs three to four, in lateral bristlecombs four to six each. Coxites IX subtriangular, each with a marginal setal fringe and a transverse bristlecomb of four macrosetae (Fig. 10). Two pairs of styli present (one pair only in subadult specimens). Ovipositor reaching beyond the apices of styli IX by about the latter's length (Fig. 11), tips of gonapophyses unmodified.

Male unknown.

Caudal filaments setated as usual for genus, reaching up to at least 0.75 times body length.

MATERIAL EXAMINED. Holotype ♀: GAMBIA: 3 km N.W. Central Banjul, garden at Wadner Beach Hotel, 25.ii.1977; 1 female paratype, same data as holotype; 1 female, 2 immature females, paratypes, 3 km N.W. Central Banjul, in vegetation along mangrove swamp, 22.ii.1977.

REMARKS. *C. gambiana* can be distinguished from all other *Ctenolepisma* spp. with similarly setated abdomens by the presence of transverse bristlecombs on coxites IX. In totality of characters it resembles *C. maroccana* Mendes, 1980 most closely, but the latter has 3+3 bristlecombs on urotergites II to VII, generally less macrosetae in all bristlecombs, and a single pair of styli only.

Thermobia aegyptiaca (Lucas)

Lepisma aegyptiaca Lucas, 1840: 559.

This species is widespread in Africa, new for Senegambia.

MATERIAL EXAMINED. GAMBIA: 1 female, Wadner Beach Hotel, 9.iii.1977. SENEGAL: 1 female, Hotel Escale Ziguinchor, 7.iii.1977.

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